

CYLINDROCLADIUM DISEASE OF AZALEAS IN FLORIDA

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Cylindrocladium leaf spot (blight) and wilt are caused by two closely related fungi, *Cylindrocladium scoparium* Morgan and *C. floridanum* Sobers & Seymour (1,4,6). In Florida, this disease has caused serious losses to cultivated azalea hybrids (*Rhododendron obtusum*) in various stages of nursery production (2,3,4). Varieties differ significantly in susceptibility. Some of the more susceptible varieties are: Rentschler's Rose, Roadrunner, Warbler, Whitewater, Albert Elizabeth, Lentengrood, and Eric Scharae (2,4). Disease incidence and severity are closely related to high humidity (2,3,4,5,7).

SYMPTOMS. Poor root development has been reported on cuttings in the presence of *C. scoparium* (5). Wilt (Fig. 1A) and leaf spot (blight) (Fig. 1B) are the two most distinguishable phases of this disease (1,2,7). Leaf spots are circular to irregular in shape and reddish brown, occurring frequently at the tip or margin of the leaf. Depending on variety, the infected leaves may rapidly turn brown or black with defoliation occurring within a few days (1,5,7). The wilt phase is closely related to stem canker development. Brown to black cankers form near the soil line and soon the vascular tissue becomes infected. This is followed by a rapid wilting of the leaves starting with the top branches of the plant. Brown mycelial growth may be observed on both leaves and cankers particularly when conditions of high humidity are prevalent (Fig. 1C).

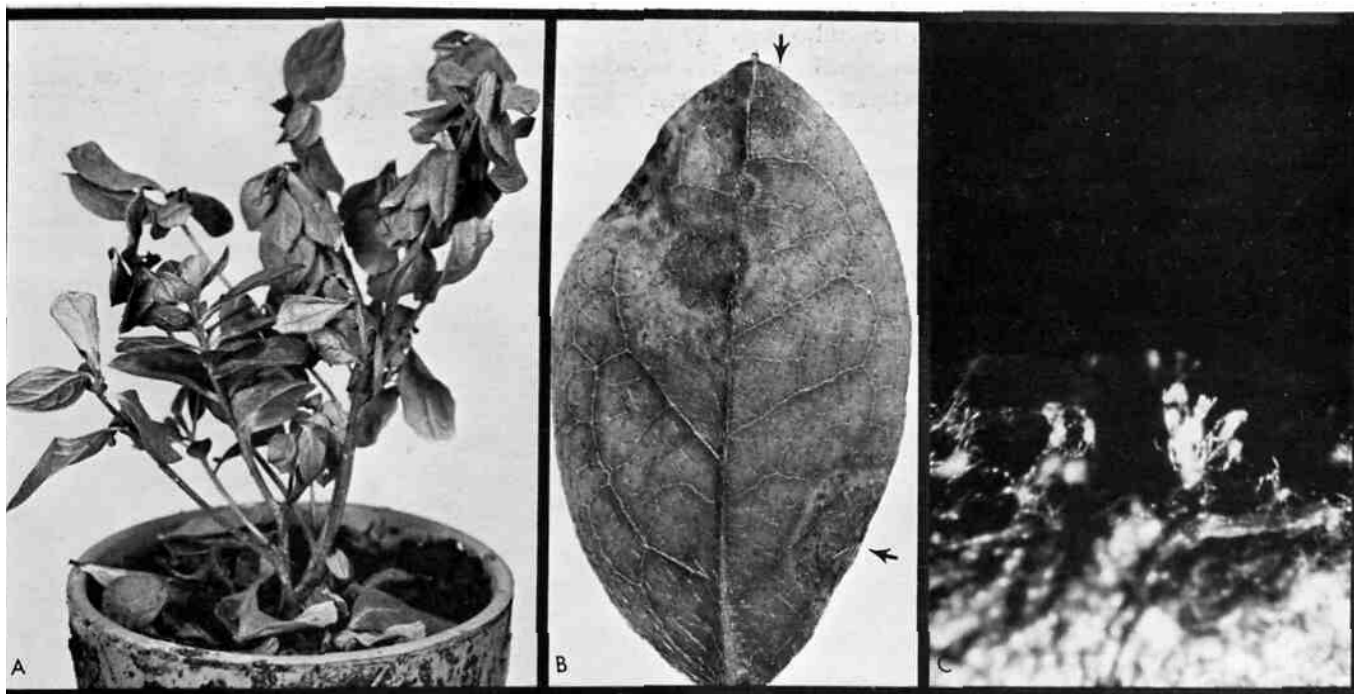


Fig. 1. *Cylindrocladium* disease on azalea: A) wilt phase; B) leaf spot (blight) phase; C) mycelial mat on stem canker.

CONTROL. One of the most important control measures to be considered is to spray regularly all plant material from which cuttings are to be taken for propagation. If the disease is controlled on this propagative plant material, subsequent control measures will likely be much more effective. A suggested control program is as follows: Benlate used at a rate of 1 lb/100 gal per 1000 sq ft of bench space should be applied once as a drench to cutting beds coinciding with root development (approximately 6 weeks following plunging). After rooted liners are potted, apply foliage spray and soil drench weekly during the winter alternating with Benlate 50 WP (3/4 lb/100 gal) and Daconil 75 WP (1 lb/100 gal). In summer, it is suggested that these fungicides be applied every other week. Englehard (3) reported that soaking cuttings for 10 min in a Benlate solution at the rate of 1 lb/100 gal prior to plunging or weekly drenching of cuttings under mist gave excellent control of *Cy-lindrocladium*.

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